



City of Palo Alto

Mercury and Dioxin Elimination Policy

The following policy was approved by the Palo Alto City Council on July 17, 2000:

It is a goal of the City of Palo Alto to eliminate the creation of dioxin and its subsequent release to the environment and to eliminate the use of mercury and its subsequent release to the environment. To achieve this goal, the City will evaluate pollution prevention opportunities to eliminate mercury and dioxin sources from municipal, commercial, industrial and residential activities. Scheduling of specific actions will focus on the most cost-effective and preventable sources first.

The mercury elimination strategy will focus on products that contain mercury as an intentional ingredient; laboratory, medical, and manufacturing processes that use mercury; and the combustion of mercury-containing fuels or wastes. The dioxin elimination strategy will focus on products that contain dioxin, manufacturing processes that create dioxin as a by-product, and combustion of fuels or wastes that contain dioxin precursors.

It is recognized that it may not be possible to totally eliminate mercury and dioxin releases due to technological or economic factors. However, significant progress can be achieved by working toward elimination through regulatory and voluntary pollution prevention programs.

For questions regarding Policy implementation, contact Stephanie Hughes or Phil Bobel, Environmental Compliance Division, Public Works, at (650) 329-2598.

ATTACHMENT 1

City of Palo Alto's Mercury Elimination Plan for 2000-2001

Source	Audiences	Message / Program	Staff Implementation Plan
MUNICIPAL SOURCES			
Municipal leadership regarding all sources	City staff, residents, businesses, industry	City is reviewing opportunities to eliminate mercury releases	Present Mercury and Dioxin Elimination Policy to City Council for adoption
Fluorescent lights	Purchasing and Utilities Departments	Recycle fluorescent lights from all City locations Purchase low-mercury fluorescent bulbs	Facilitate improvements and fill gaps in the internal lamp recycling program ECD to present purchasing options to Purchasing and Facilities Departments
Impurities in water treatment chemicals	Water Department and Wastewater Treatment Operations	Need to research possibility of mercury and other metal impurities in water treatment chemicals	ECD to assist other departments with manufacturer communications and product testing to look for mercury and other metals in water treatment chemicals
Use of mercury-containing laboratory chemicals	Wastewater treatment laboratory	Consider alternative chemicals	Review current practices with wastewater lab to determine options and barriers to implementation
Mercury-containing thermometers, switches and manometers	Facilities, Utilities, and Wastewater Treatment Plant Operations	Identify and replace mercury-containing switches and manometers within City operations	Identify mercury-containing equipment and review alternatives with Utilities and Public Works staff

COMMERCIAL AND INDUSTRIAL SOURCES

Dental amalgam and dental waste mercury	Dentists	<p>Proper management and disposal of waste amalgam and dental wastewater discharges</p> <p>Options for enhanced collection of mercury and amalgam waste from dental wastewater</p>	<p>In January 2000, initiated stakeholder meetings with Mid-Peninsula Dental Society to design educational campaign</p> <p>Creating straightforward explanation of proper dental wastewater screening, waste amalgam collection and waste management</p> <p>The local dental association will deliver the messages to their members (representing 90% of local dentists)</p> <p>Consider providing easier/free disposal of liquid mercury, waste amalgam and/or wastewater filters at WQCP</p>
Medical use of mercury devices and chemicals	Hospital and clinic Environmental Health & SAFETY (EH&S) staff; hospital administrators	Find new opportunities to eliminate mercury in hospital devices and chemicals. Expand on thermometer program and other successful efforts.	<p>Discuss with hospital staff during required semi-annual inspections; create and use a pollution prevention checklist for inspectors; prepare summary of efforts in Minnesota, Boston and elsewhere for use by hospital staff</p> <p>Track state legislation regarding hospital use of mercury</p>
Switches, manometers and other mercury-containing devices	Facility managers	Identify and replace mercury-containing equipment whenever feasible	Create and distribute factsheet listing mercury components and alternative devices, based on analysis conducted regarding similar municipal sources
Mercury-containing thermostats	Building and HVAC contractors	<p>Recycle mercury-thermostats</p> <p>Install non-mercury thermostats</p>	<p>Allow and encourage Small Quantity Generator contractors to bring waste mercury to RWQCP</p> <p>Mail information to plumbing and heating contractors about hazardous waste disposal options and the RWQCP drop-off program</p>

Fluorescent lights	Facility managers; small-business owners	Recycle fluorescent lights Purchase low-mercury fluorescent bulbs	Create a fact sheet for facility managers. If feasible, create a drop-off program for Small Quantity Generators. Conduct a rebate program (Utilities Department) for the purchase of low-mercury fluorescent bulbs.
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RESIDENTIAL SOURCES			
Mercury-containing thermostats	Homeowners; landlords	Recycle mercury-thermostats Install non-mercury thermostats	Continue promoting mercury thermostat drop-off and \$5 coupon program
Fluorescent lights	Homeowners and renters	Recycle fluorescent lights Purchase low-mercury fluorescent bulbs	Encourage recycling of fluorescent lights and conduct a rebate program with the Utilities Department for the purchase of low-mercury fluorescent bulbs. Work on regional efforts to 1) improve availability of low-mercury lights and 2) create easier drop-off programs once the Universal Waste Rule is in-place.
Mercury thermometers	Homeowners and renters	Recycle mercury thermometers and replace with non-mercury alternatives	Continue promoting thermometer drop-off and coupon program

ATTACHMENT 2

City of Palo Alto's Dioxin Elimination Plan for 2000-2001

Source	Audience	Messages	Staff Implementation Plan
MUNICIPAL SOURCES			
Municipal leadership regarding all sources	City staff, residents, businesses, and industry	City of Palo Alto is reviewing opportunities to eliminate dioxin releases	Present Mercury and Dioxin Elimination Policy to City Council for adoption
Sewage sludge incinerator	Stakeholders	Review options to reduce or eliminate dioxin releases from sludge management processes	Initiate a "Long-Term Goal Study for the RWQCP" in which staff and stakeholders will review long-term options for wastewater treatment processes that reduce or eliminate dioxin releases from the facility
Chlorine-bleached paper products	Purchasing department	Encourage the purchase of process-chlorine-free paper products	ECD to assist Purchasing staff with identifying and pricing alternatives Consider altering paper purchasing specifications to mandate process-chlorine-free office and toilet paper
Diesel exhaust	Municipal fleet managers	Keep all vehicles tuned up Consider alternatives to diesel vehicles at each purchase opportunity	Fleet staff to continue using new diagnostic equipment to ensure that diesel fleet is performing as efficiently as possible ECD to work with fleet manager to consider alternative, lower emission vehicle engines (especially natural gas and electric) for each category of vehicles as new products become available
INDUSTRIAL AND COMMERCIAL SOURCES			
Chlorine-bleached paper products	Purchasing managers	Purchase process-chlorine-free paper products	Include line item in the pollution prevention checklist to be used in the required semi-annual industrial inspections

Diesel exhaust	Fleet managers at businesses, public schools, and other institutions	Keep all vehicles tuned up Consider alternatives to diesel vehicles	Include line item in pollution prevention checklist to be used in the required semi-annual industrial inspections Advise schools of grant opportunities to assist schools in obtaining low-emission vehicles
RESIDENTIAL SOURCES			
Automobile exhaust	Commuters; Employers; Students	"Cars Pollute Water Too" Dioxin and other air emissions can be reduced with frequent oil changes and tune-ups and by decreasing auto use	Consider incentives for participants in bike-to-school programs and new participants in employer commuter programs Deliver posters and handouts to schoolchildren with "Cars Pollute Water Too" message Utilize Earth Day and other special events to distribute message.
Diesel exhaust	People looking to purchase a diesel vehicle	Consider non-diesel alternatives	Consider newspaper ads in the classified section
Existing fireplaces	Homeowners	Decrease use of fireplace; burn hardwoods or pressed logs; do not burn soft wood, wrapping paper or trash	ECD to promote public outreach campaign, including utility bill insert and newspaper ads
Fireplaces in new homes or remodels	City planners; architects	Due to health and ecosystem issues, new construction should include only U.S. EPA-approved fireplaces	Support new fireplace ordinance Develop multi-department literature to combine health, earthquake and safety messages in new construction information
Chlorine-bleached paper products	All residents	Reduce releases of dioxin to our environment by purchasing process-chlorine-free paper products	ECD outreach campaign to residents through their employer newsletters and e-mail, community groups and clubs and newspaper ads Consider giving away free chlorine-free paper samples at fairs, festivals and farmers markets

Laundry/ graywater	Homeowners	Consider gray-water irrigation systems	While not a priority for 2000-01, consider collaborating with water conservation programs in drought years
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